

## Shawnee County

### Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

5/24/2016

Using the most recent IMPLAN data available (2014) adjusted for 2016, 27 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Shawnee County economy.<sup>1</sup>

These 27 sectors have a total direct output of approximately **\$2 billion** and support **4,577.1 jobs** in Shawnee County. Running the model for all 27 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Shawnee County Economy						
Impact Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>	Output % of Gross Regional Product
Direct Effect	4,577.1	3.87%	\$478,800,828.38	4.97%	\$2,021,377,142.86	20.97%
Indirect Effect	2,965.1	2.51%	\$293,284,785.38	3.04%	\$513,864,405.03	5.33%
Induced Effect	1,931.7	1.63%	\$148,587,287.71	1.54%	\$253,425,112.94	2.63%
<b>Total Effect</b>	<b>9,473.8</b>	<b>8.01%</b>	<b>\$920,672,901.47</b>	<b>9.55%</b>	<b>\$2,788,666,660.82</b>	<b>28.93%</b>

As shown in the above table, agriculture, food, and food processing sectors support **9,473.8 jobs**, or **8.01%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$2.8 billion**, roughly **28.93% of the economy**.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 27 agriculture, food, and food processing sectors is approximately **\$920.7 million**, or **9.55% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **9.55% of the total economy**.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

[http://www.implan.com/index.php?option=com\\_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70](http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70)

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the all other food manufacturing sector is the top employer with **1,251.1 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Shawnee County.

Top Ten Sectors by Employment		
Sector	Total Employment	Total Output
All other food manufacturing	1251.1	\$407,958,368.57
Other snack food manufacturing	756.1	\$500,235,070.21
Wholesale trade	673.8	\$171,227,393.03
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	567.0	\$29,144,906.94
Dog and cat food manufacturing	491.1	\$686,941,159.91
Landscape and horticultural services	334.1	\$24,567,815.23
Truck transportation	289.0	\$38,710,198.97
Veterinary services	272.0	\$26,926,080.31
Management of companies and enterprises	230.7	\$57,512,704.06
Employment services	197.8	\$9,500,172.53

The dog and cat food manufacturing sector directly contributes approximately **\$686.9 million** to the Shawnee County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Sectors by Output		
Sector	Total Employment	Total Output
Dog and cat food manufacturing	491.1	\$686,941,159.91
Other snack food manufacturing	756.1	\$500,235,070.21
All other food manufacturing	1251.1	\$407,958,368.57
Wholesale trade	673.8	\$171,227,393.03
Animal, except poultry, slaughtering	190.5	\$116,624,384.65
Chocolate and confectionery manufacturing from cacao beans	91.4	\$82,593,722.72
Management of companies and enterprises	230.7	\$57,512,704.06
Truck transportation	289.0	\$38,710,198.97
Owner-occupied dwellings	0.0	\$35,884,817.61
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	567.0	\$29,144,906.94

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Shawnee County economy.

<b>All Agriculture, Food, and Food Processing Sectors</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Oilseed farming	30.5	\$16,424,416.16
Grain farming	107.5	\$18,743,048.37
Vegetable and melon farming	0.7	\$106,435.61
Fruit farming	2.3	\$195,687.73
Tree nut farming	0.0	\$200.01
Greenhouse, nursery, and floriculture production	7.5	\$994,858.78
All other crop farming	61.1	\$2,244,522.41
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	567.0	\$29,144,906.94
Poultry and egg production	0.7	\$345,166.09
Animal production, except cattle and poultry and eggs	46.3	\$2,550,649.88
Commercial logging	17.5	\$872,515.71
Commercial hunting and trapping	1.6	\$39,571.59
Dog and cat food manufacturing	491.1	\$686,941,159.91
Other animal food manufacturing	17.4	\$26,679,809.48
Chocolate and confectionery manufacturing from cacao beans	91.4	\$82,593,722.72
Confectionery manufacturing from purchased chocolate	29.1	\$9,098,260.28
Animal, except poultry, slaughtering	190.5	\$116,624,384.65
Bread and bakery product, except frozen, manufacturing	160.6	\$19,110,350.79
Frozen cakes and other pastries manufacturing	7.2	\$1,059,160.55
Other snack food manufacturing	756.1	\$500,235,070.21
Coffee and tea manufacturing	8.7	\$4,521,585.88
All other food manufacturing	1251.1	\$407,958,368.57
Farm machinery and equipment manufacturing	30.2	\$17,444,197.93
Food product machinery manufacturing	7.3	\$2,253,580.21
All other industrial machinery manufacturing	87.4	\$23,701,616.87
Veterinary services	272.0	\$26,926,080.31
Landscape and horticultural services	334.1	\$24,567,815.23

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Shawnee County, the retail sector was omitted.